

# Routes for a Strong Communicational Ontology

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## ABSTRACT

The current study aims to highlight the communication ontology through ontology of philosophy. Communication as a field of science is relatively new, it is looking for methods, procedures, rules to integrate it within the human sciences. There are still controversies, there are still made researches, axiomatization, conceptualization to define communication as science.

**Keywords:** ontology; epistemology; communication ontology

## 1. INTRODUCTION

At the beginning of the century, Frege, then Russell, invented mathematical logic: this is separate of Aristotelian logic and special deals with relational reasoning. Also rejecting the Euclidean axiom of parallels, Lobacevski and Riemann build non-Euclidean geometries. Since 1905, Einstein's *theory of relativity* shows that classical physics does not apply to atomic or astronomical objects. Also arise new sciences that expand the field of objective knowledge: biology and especially the human sciences. Sociology and experimental psychology release of philosophy. Appear linguistics, ethnology, psychoanalysis, communication etc. The reason that inspired Aristotle along *Metaphysics* is the desire to acquire the form of knowledge which is the most worthy to wear the name of wisdom. "Wisdom" should not be just science or knowledge of the causes, but knowledge of first causes and the most universal. For this wisdom that completely satisfy its criteria that should we use naturally. It is the most comprehensive knowledge; knowledge about what is most difficult to know, since its objects, being the most universal, are the farthest from the senses; the most exactly knowledge, since they are the most abstract objects, the less complex; the most instructive; the self-sufficient and independent; and most authoritative, since *inter alia* knowledge will be the final cause of all things.

**Metaphysics** (according to DEX) is the part of the philosophy that studies the knowledge of being as being (Aristotle), the supersensible beyond the outer world (Thomas de Aquino), establishing indubitable first principles of existence and knowledge (Descartes, Spinoza, Leibnitz), the critical research conditions of possibilities of our thinking (Kant), or the branch of philosophy that deals with the first principles of things, including abstract concepts such as being, knowing, substance, cause, identity, time, and space according to Oxford Dictionaries.

## 2. FUNDAMENTALS OF ONTOLOGY

### 2. 1. Origins of Ontology

There are four different ontological dimensions for Aristotle: according to the various categories or ways of addressing a being as such; according to its truth or falsity; whether it exists in and of itself or simply 'comes along' by accident; according to its potency, movement (energy) or finished presence.

### 2. 2. Ontological pluralism

Ontological pluralism is the view that there are modes of being, ways of existing, or different ways to be something (Goldschmidt, 2014). Ontological pluralism is an intriguing and alluring doctrine, despite its present unpopularity. If it is true, many metaphysical questions must be rethought. One of these is the question of why there is something rather than nothing.

## 3. EPISTEMOLOGY

The term appears only in 1905 in *New Encyclopaedia Britannica*, in *Larousse illustre* in 1906. The term comes from Greek: *episteme* means knowledge or science; and *logos* means also language, discourse and judgment, scientific study. Recounted in the suffix "-logy" of biology or zoo-logy etc. Epistemology preserve, in English, the two directions defining episteme as knowledge study or science theory, while the French understand *epistemology* as the study of science, reserving the study of modes of knowledge to gnoseology. Thus defined, epistemology circumscribe its object: scientific knowledge with its premises, its concepts, its methods. It conquers his own status: reflections on sciences.

### 3. 1. Epistemology at the crossroads of disciplines

Of course, epistemology is neither isolated nor alone in this approach. This means that in its vision is joining to multiple disciplines, as many as can be distinguished. Without pretending to be listed all, will be retained that epistemology articulates mainly with:

**a) History of sciences.** Scientific objects are not petrified objects. They have a life: born, evolve, and sometimes die. History of sciences circumscribes the becoming. This is not a concern of "antique" (Nietzsche), but from a desire of reconstruction sanctioned of a past executed by the present, in which even the errors can play their role. Epistemology finds in the history of sciences the matter and examples, giving the idea to its models of reconstruction.

**b) Philosophy of knowledge.** Epistemology will serve of the outcome of these analyzes on the knowledge generally in order to apply them to scientific knowledge. In Hume and Kant, the act of knowledge was described as being in relation a knowing subject with a known object or to be known. Putting at distance an object by a human subject is undoubtedly the first step of knowledge. "*What does it mean to know?*" and "*How do we know?*" are the central questions on which bends philosophy of knowledge; their treatment involves a general reflection both on the notion of experience and on the judgment as well.

**c) Logics.** Since Aristotle, logic is considered the instrument [organon] major of rational thought. Requirement of rationality has no way diminish when reflection is on science. So the logic will be the preferred tool of epistemology. Also, in a more specific, however, could assign to epistemology the objective to describe the logic of science, that is how it works in a

methodological perspective. In the nineteenth century, a general methodology still was teaching to the "logical time" (the last year of high school). It is so true that the sciences are not informal, unstructured objects, developed randomly according to findings, as it shows such some organization whose functioning must be understood.

**d) Sociology of cognition.** Recently, anthropologists and sociologists have been interested in how scientific research is organized, of institutions and research laboratories, for creative ways of disseminating in research. They feel that validation modes are subject of social structures that constitute science. Therefore sociology of cognition manifests an interest little derived from rational reconstruction of scientific results of that epistemology deals in privileged mode.

**e) Philosophy of sciences.** Since ancient times, the philosophical reflection has turned on objects of science to understand and explicit philosophical assumptions and importance of philosophical practices. Philosophy of sciences is undoubtedly, the nearest sub-discipline to epistemology. Unification of thought and its objectives in a philosophical perspective appears for epistemologist as a postulate unimportant, that it is better to discard. Even if there is unified models of scientific knowledge, epistemologist will take care to present them as some possible models among many others as possible.

**f) Philosophy of language.** The etymology of epistemology draws attention to the language of sciences. Philosophy of language will find in epistemology the best its field or of application. At the beginning of the century, at Cambridge, a thinking current on language dealt of circumscribing the sciences language specificities, the formal sciences in particular. The linguistic turn that characterizes the twentieth century led to questioning on the importance, the need to use specialized languages in science; also on the reasons for which each science must also to resort to natural language. Sintactical, semantic and pragmatic researches arise from here.

**g) Genetically epistemology.** The term was conceived by Piaget, Swiss psychologist, to develop psychological mechanisms study of knowing: what steps should be imagined in the maturation of concepts that constitute the act of cognition, such as the acquisition of sensor-motor schemas, mastery of logical operations etc.? This kind of research finds today continuity in *cognitive science* direction, ie in the sense of contemporary articulations of psychology with neuro-sciences, with linguistics, logic, epistemology, to understand issues like perception, learning, speech recognition or of image etc.

#### 4. METHODS OF ONTOLOGY

The methods of ontology are the same methods of philosophy. These methods were familiar already to Aristotle himself. In the course of the twentieth century a range of new formal tools became available to ontologists for the development and testing of their theories (Smith, 2008). They include the development of theories of wider or narrower scope and the testing and refinement of such theories by measuring them up, either against difficult counterexamples or against the results of science. Ontologists nowadays have a choice of formal frameworks (deriving from algebra, category theory, mereology, set theory, topology) in terms of which their theories can be formulated. These new formal tools, along with the language of formal logic, allow philosophers to express intuitive principles and definitions in clear and rigorous fashion, and, through the application of the methods of formal semantics, they can allow also for the testing of theories for consistency and completeness (Smith, 2008).

## 5. CONCLUSIONS

An ontology is a specification of a conceptualization. What is important, is what an ontology is *for* (Gruber, 1993). An ontology is a specification used for making ontological commitments. In an ontology, definitions associate the names of entities in the universe of discourse (e.g., classes, relations, functions, properties or other objects) with human-readable text describing what the names mean, and formal axioms that constrain the interpretation and well-formed use of these terms. Formally, an ontology is the statement of a logical theory (Gruber, 1993).

## References

- [1] D. Gifu, O. V. Buşu, M. Teodorescu, *International Letters of Social and Humanistic Sciences* 27 (2014) 82-93.
- [2] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 14 (2014) 7-17.
- [3] T. R. Gruber, *Acquisition* 5 (1993) 199-220.
- [4] Ştefan Vlăduţescu, *American International Journal of Contemporary Research* 3(10) (2013).
- [5] D. Gifu, D. Ionescu, M. Teodorescu, *International Letters of Social and Humanistic Sciences* 26 (2014) 18-28.
- [6] Paula Bajdor, Iwona Grabara, *Journal of Studies in Social Sciences* 7(2) (2014).
- [7] B. Smith (2008). *Ontology*. The Blackwell guide to the philosophy of computing and information, 153-166.
- [8] Ioan Constantin Dima, Ştefan Vlăduţescu (2012). *Persuasion elements used in logistical negotiation: Persuasive logistical negotiation*. Saarbrücken: LAP Lambert Academic Publishing.
- [9] T. Goldschmidt (Ed.). (2014). *The Puzzle of Existence: Why is There Something Rather Than Nothing?*. Routledge.
- [10] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 14 (2014) 33-41.
- [11] Daniela Gifu, Mirela Teodorescu, Dan Ionescu, *International Letters of Social and Humanistic Sciences* 17 (2014) 61-69.
- [12] Petre Bosun, Daniela Gifu, Mirela Teodorescu, *International Journal of Education and Research* 2(3) (2014).
- [13] Florentin Smarandache, Ştefan Vlăduţescu, Alina Ţenescu (2014). *Current Communication Difficulties*. Craiova/Columbus: Sitech/Zip Publishing.
- [14] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 6 (2013) 86-90.
- [15] F. Smarandache, Ş. Vlăduţescu (2014). *Neutrosophic Emergences and Incidences in Communication and Information*. Saarbrücken: LAP Lambert Academic Publishing.

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- [16] S. M. Radu, *International Letters of Social and Humanistic Sciences* 16 (2014) 184-193.
- [17] Janusz Grabara, Michal Kolcun, Sebastian Kot, *International Journal of Education and Research* 2(2) (2014).
- [18] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 4 (2013) 70-74.
- [19] Ștefan Vlăduțescu, *International Letters of Social and Humanistic Sciences* 24 (2014) 86-94.
- [20] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 2 (2013) 56-60.
- [21] Florentin Smarandache, Ștefan Vlăduțescu (2014). *Towards a Practical Communication Intervention*. Revista de Cercetare si Interventie Sociala.
- [22] Ștefan Vlăduțescu, *European Scientific Journal* 9(32) (2013).
- [23] Ș. Vlăduțescu, E. M. Ciupercă (2013). *Next Flood Level of Communication: Social Networks*. Aachen: Shaker Verlag.
- [24] Ștefan Vlăduțescu, *International Letters of Social and Humanistic Sciences* 10 (2014) 100-106.
- [25] Ștefan Vlăduțescu, *International Letters of Social and Humanistic Sciences* 25 (2014) 16-24.
- [26] Florentin Smarandache, Ștefan Vlăduțescu (2014). *Communication Neutrosophic Routes*. Columbus, OH: Educational Publishing.
- [27] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 3 (2013) 46-53.
- [28] Ștefan Vlăduțescu, Florentin Smarandache, Daniela Gîfu, Alina Țenescu (2014). *Topical Communication Uncertainties*. Craiova/Columbus: Sitech/Zip Publishing.
- [29] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 14 (2014) 7-17.
- [30] Ștefan Vlăduțescu (2013). *What Kind of Communication Is Philosophy*. Jokull.
- [31] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 2 (2014) 110-121.
- [32] Ștefan Vlăduțescu, *International Letters of Social and Humanistic Sciences* 7 (2014) 8-13.
- [33] J. H. Gasderell, *International Letters of Social and Humanistic Science* 22 (2014) 85-91.
- [34] Ștefan Vlăduțescu, *International Letters of Social and Humanistic Sciences* 15(2) (2014) 164-170.
- [35] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 3 (2013) 46-53.
- [36] Ștefan Vlăduțescu (2013). *Principle of the Irrepressible Emergence of the Message*. Jokull.

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- [37] G. Rajović, J. Bulatović, *International Letters of Social and Humanistic Sciences* 6 (2013) 24-35.
- [38] Max G. Craig, *Journal of Studies in Social Sciences* 8(1) (2014).
- [39] Ștefan Vlăduțescu, *Journal of Sustainable Development Studies* 6(1) (2014).
- [40] M. G. Mangra, E. A. Cotoc, A. Traistaru (2013). *Sustainable Economic Development Through Environmental Management Systems Implementation*. Journal.
- [41] Ștefan Vlăduțescu, *European Scientific Journal* 9(32) (2013).
- [42] Andrzej Borowski, *International Letters of Social and Humanistic Sciences* 27 (2014) 100-110.
- [43] Jason L. Powell, *International Letters of Social and Humanistic Sciences* 17(1) (2014) 1-60.

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